FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

R-Vision, Inc.
2666 South Country Club Road
Warsaw, Indiana 46580

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 085-15108-00078	
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: May 8, 2002 Expiration Date: May 8, 2007

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary travel trailer and camper manufacturing source.

Authorized Individual:	Dennis Bowers
Source Address:	2666 South Country Club Road, Warsaw, Indiana 46580
Mailing Address:	2666 South Country Club Road, Warsaw, Indiana 46580
General Source Phone Number:	219-268-2111
SIC Code:	3792
County Location	Kosciusko
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) Line 1, installed in August 1997, consisting of the following equipment:

(1) One (1) woodworking area consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood1.1, controlled by a cyclone, identified as W1.1, exhausted to stack W1.1, capacity: 1,460 pounds of wood per hour.

(2) One (1) assembly area consisting of laminating, painting, coating and adhesive application, identified as Assembly1, exhausted to GV1.1, capacity: 2.5 trailers per hour.

(b) Line 2, installed in April 1998, consisting of the following equipment:

(1) One (1) woodworking area consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood2, controlled by a cyclone, identified as W2.1, exhausted to stack W2.1, capacity: 1,500 pounds of wood per hour.

(2) One (1) assembly and touch-up area, consisting of various aerosol cans, caulk guns, and hand-held cup guns, identified as Assembly2, exhausted to general ventilation, capacity: 2.5 trailers per hour.

(3) One (1) roll coating lamination process, identified as L2.1, exhausted to stack L2.1, capacity: 2.5 trailers per hour.

(c) Line 3, installed in November 1998, consisting of the following equipment:

(1) One (1) woodworking area, consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood3, controlled by a cyclone, identified as W3.1, exhausted to stack W3.1, capacity: 1,500 pounds of wood per hour.

(2) One (1) assembly and touch-up area, consisting of various aerosol cans, caulk guns, and hand-held cup guns, identified as Assembly3, exhausted to general ventilation, capacity: 2.5 trailers per hour.

(3) One (1) roll coating lamination process, identified as L3.1, exhausted to general ventilation, capacity: 2.5 trailers per hour.

(d) Line 4, installed in September 1999, consisting of the following equipment:

(1) One (1) woodworking area consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood4, controlled by a cyclone, identified as W4.1, exhausted to stack W4.1, capacity: 1,500 pounds of wood per hour.

(2) One (1) assembly area, consisting of various aerosol cans, brushing and spraying applications, identified as Assembly4, exhausted to general ventilation, capacity: 2.0 trailers per hour.

(e) Line 5, to be installed, consisting of the following equipment:

(1) One (1) woodworking area consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood5, controlled by a cyclone, identified as W5.1, exhausting to stack W5.1, capacity: 1,500 pounds of wood per hour.

(2) One (1) assembly area, consisting of various aerosol cans, brushing and spraying applications, identified as Assembly5, exhausting to the general ventilation, capacity: 2.0 trailers per hour.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment:

(1) One (1) MIG welding station, identified as MIG1.1, exhausted inside the plant, capacity: 1.0 pound of wire per hour. [326 IAC 6-3-2]

(2) One (1) oxyacetylene flame cutter, identified as FC1.1, exhausted inside the plant, capacity: 40.0 inches per minute. [326 IAC 6-3-2]

(3) One (1) MIG welding station, identified as MIG2.1, exhausted through general ventilation, capacity: 0.5 pounds of wire per hour. [326 IAC 6-3-2]

(4) Two (2) MIG welding stations, identified as MIG3.1 and MIG3.2, exhausted through general ventilation, capacity: 1.0 pound of wire per hour, each. [326 IAC 6-3-2]

(b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour:

(1) Four (4) natural gas fired space heaters, identified as H1.1 - H1.4, exhausted to stacks H1.1 - H1.4, capacity: 0.225, 0.125, 0.10, and 0.075 million British thermal units per hour, respectively.

(2) Four (4) natural gas fired space heaters, identified as H2.1 - H2.4, exhausted to stacks H2.1 - H2.4, capacity: 0.125 million British thermal units per hour, each.

(3) Five (5) natural gas fired space heaters, identified as H2.5 - H2.9, exhausted to stacks H2.5 - H2.9, capacity: 0.20 million British thermal units per hour, each.

(4) Five (5) natural gas fired space heaters, identified as H3.1 - H3.3, H3.5, and H3.6, exhausted to stacks H3.1 - H3.3, H3.5, and H3.6, capacity: 0.15 million British thermal units per hour, each.

(5) Seven (7) natural gas fired space heaters, identified as H3.4 and H3.7 - H3.12, exhausted to stacks H3.1 - H3.3 and H3.5 and H3.6, capacity: 0.125 million British thermal units per hour, each.

(6) Eight (8) natural gas fired space heaters, identified as H4.1 - H4.8, exhausted to stack H4.1 - H4.8, rated at 0.10 million British thermel unit per our, each.

(7) Eight (8) natural gas fired space heaters, identified as H5.1 through H5.8, exhausting to Stacks H5.1 through H5.8, rated at 0.20 million British thermal units per hour, each.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the original date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)] [326 IAC 2-8-5(a)(4)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking

and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the U. S. EPA along with a claim of confidentiality.[326 IAC 2-8-4(5)(E)]

(c) The Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

(a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:

(1) Enforcement action;

(2) Permit termination, revocation and reissuance, or modification; and

(3) Denial of a permit renewal application.

(b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(c) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.

(c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the

previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ / Northern Regional Office, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967
Northern Regional Office: 219-245-4870
Facsimile No: 219-245-4877

Failure to notify IDEM, OAQ and Northern Regional Office, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall

constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(c) Emergencies shall be included in the Quarterly Deviation and Compliance Monitoring Report.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as

practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

(c) Right to Operate After Application for Renewal [326 IAC 2-8-9]
If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

(a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a)

and the following additional conditions:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the

permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action, or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

B.24 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

(a) The requirements to obtain a permit revision under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.

(b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction work is suspended for a continuous period of one (1) year or more.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable;

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or

326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.8 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326

IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

C.12 Pressure Gauge and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)] [326 IAC 2-8-5(1)]

(a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(b) Whenever a condition in this permit requires the measurement of a temperature, flow rate, or pH level, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

(c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

(a) A compliance schedule for meeting the requirements of 40 CFR 68; or

(b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP).

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.14 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.

(d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

(e) The Permittee shall record all instances when response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

(f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required data, reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available

upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The source shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

(a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156

(b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

(c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(a) Line 1, installed in August 1997, consisting of the following equipment:

(1) One (1) woodworking area consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood1.1, controlled by a cyclone, identified as W1.1, exhausted to stack W1.1, capacity: 1,460 pounds of wood per hour.

(2) One (1) assembly area consisting of laminating, painting, coating and adhesive application, identified as Assembly1, exhausted to GV1.1, capacity: 2.5 trailers per hour.

(b) Line 2, installed in April 1998, consisting of the following equipment:

(1) One (1) woodworking area consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood2, controlled by a cyclone, identified as W2.1, exhausted to stack W2.1, capacity: 1,500 pounds of wood per hour.

(2) One (1) assembly and touch-up area, consisting of various aerosol cans, caulk guns, and hand-held cup guns, identified as Assembly2, exhausted to general ventilation, capacity: 2.5 trailers per hour.

(3) One (1) roll coating lamination process, identified as L2.1, exhausted to stack L2.1, capacity: 2.5 trailers per hour.

(c) Line 3, installed in November 1998, consisting of the following equipment:

(1) One (1) woodworking area, consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood3, controlled by a cyclone, identified as W3.1, exhausted to stack W3.1, capacity: 1,500 pounds of wood per hour.

(2) One (1) assembly and touch-up area, consisting of various aerosol cans, caulk guns, and hand-held cup guns, identified as Assembly3, exhausted to general ventilation, capacity: 2.5 trailers per hour.

(3) One (1) roll coating lamination process, identified as L3.1, exhausted to general ventilation, capacity: 2.5 trailers per hour.

(d) Line 4, installed in September 1999, consisting of the following equipment:

(1) One (1) woodworking area consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood4, controlled by a cyclone, identified as W4.1, exhausted to stack W4.1, capacity: 1,500 pounds of wood per hour.

(2) One (1) assembly area, consisting of various aerosol cans, brushing and spraying applications, identified as Assembly4, exhausted to general ventilation, capacity: 2.0 trailers per hour.

(e) Line 5, to be installed, consisting of the following equipment:

(1) One (1) woodworking area consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood5, controlled by a cyclone, identified as W5.1, exhausting to stack W5.1, capacity: 1,500 pounds of wood per hour.

(2) One (1) assembly area, consisting of various aerosol cans, brushing and spraying applications, identified as Assembly5, exhausting to the general ventilation, capacity: 2.0 trailers per hour.

THIS CONSTRUCTION CONDITION SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.1.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

D.1.2 Pursuant to IC 13-15-5-3, this Construction Condition section of this permit becomes effective upon its issuance.

D.1.3 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.4 HAPs Limitations [326 IAC 2-8-4]

(a) The worst case single HAP delivered to the coating applicators at Assembly1, Assembly2, Assembly3, Assembly4 and Assembly5 shall not exceed a total of ten (10) tons per twelve (12) consecutive month period. Therefore, the requirements of 326 IAC 2-7 do not apply.

(b) Any change or modification which would increase the potential to emit a combination of HAPs from Assembly1, Assembly2, Assembly3, Assembly4 and Assembly5 to twenty-five (25) tons per year or more, shall obtain prior approval from IDEM, OAQ.

D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-2-9] [326 IAC 8-2-12]

(a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicators when coating metal at the five (5) assembly and touch-up operations, identified as Assembly1, Assembly2, Assembly3, Assembly4 and Assembly5, shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for air dried or extreme performance coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

(b) Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the surface coating applied to wood furniture and cabinets shall utilize one of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application

Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.1.6 Particulate Matter (PM) [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the one (1) woodworking area, identified as Wood1.1, shall not exceed 3.32 pounds per hour when operating at a process weight rate of 1,460 pounds per hour (0.73 tons per hour).

This limitation is based on the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

(b) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the four (4) woodworking areas, identified as Wood2, Wood3, Wood4, and Wood5, shall each not exceed 3.38 pounds per hour when operating at a process weight rate of 1,500 pounds per hour each (0.75 tons per hour each).

This limitation is based on the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

(c) The particulate matter (PM) from the assembly and touch-up operations, identified as Assembly1, Assembly2, Assembly3, Assembly4 and Assembly5 shall be each limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

D.1.7 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.8 Hazardous Air Pollutants (HAPs)

Compliance with the HAPs usage limitation contained in Condition D.1.4 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

D.1.9 Volatile Organic Compounds (VOC)

Compliance with the VOC content limitation contained in Condition D.1.5 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer.

D.1.10 HAPs Emissions

Compliance with Condition D.1.4 shall be demonstrated within 30 days of the end of each month based on the total HAPs usage for the twelve (12) month period.

D.1.11 Particulate Matter (PM)

In order to comply with Condition D.1.6, the cyclones for PM control shall be in operation at all times when the five (5) woodworking areas (Wood1.1, Wood2, Wood3, Wood4 and Wood5) are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.12 Visible Emissions Notations

(a) Visible emission notations of the stacks W1.1, W2.1, W3.1, W4.1 and W.5.1 exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.13 Cyclone Inspections

An inspection shall be performed each calender quarter of all cyclones controlling the woodworking operations when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

D.1.14 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.15 Record Keeping Requirements

(a) To document compliance with Condition D.1.4, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP usage limit established in Condition D.1.4.

(1) The amount and HAP content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(3) The cleanup solvent usage for each month;

(4) The total single and combination of HAPs usage for each month; and

(5) The weight of single and combination HAPs emitted for each compliance period.

(b) To document compliance with Condition D.1.5, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC content limit established in Condition D.1.5.

(1) The amount of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) The total VOC usage; and

(3) The weight of VOCs emitted for each compliance period.

(c) To document compliance with Condition D.1.12, the Permittee shall maintain records of once per shift visible emission notations of the cyclone stacks exhaust (Stacks W1.1, W2.1, W3.1, W4.1 and W.5.1).

(d) To document compliance with Condition D.1.13, the Permittee shall maintain records of the results of the inspections required under Condition D.1.13 and the dates the vents are redirected.

(e) All records shall be maintained in accordance with Section C - General Record Keeping

Requirements, of this permit.

D.1.16 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.4 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment:

(1) One (1) MIG welding station, identified as MIG1.1, exhausted inside the plant, capacity: 1.0 pound of wire per hour. [326 IAC 6-3-2]

(2) One (1) oxyacetylene flame cutter, identified as FC1.1, exhausted inside the plant, capacity: 40.0 inches per minute. [326 IAC 6-3-2]

(3) One (1) MIG welding station, identified as MIG2.1, exhausted through general ventilation, capacity: 0.5 pounds of wire per hour. [326 IAC 6-3-2]

(4) Two (2) MIG welding stations, identified as MIG3.1 and MIG3.2, exhausted through general ventilation, capacity: 1.0 pound of wire per hour, each. [326 IAC 6-3-2]

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6-3-2]

The particulate matter (PM) from the MIG welding and flame cutting operations shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: R-Vision, Inc.
Source Address: 2666 South Country Club Road, Warsaw, Indiana 46580
Mailing Address: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP No.: F 085-15108-00078

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

9 Annual Compliance Certification Letter

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Affidavit (specify) _____

9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: R-Vision, Inc.
Source Address: 2666 South Country Club Road, Warsaw, Indiana 46580
Mailing Address: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP No.: F 085-15108-00078

This form consists of 2 pages **Page 1 of 2**

9 This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: R-Vision, Inc.
Source Address: 2666 South Country Club Road, Warsaw, Indiana 46580
Mailing Address: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP No.: F 085-15108-00078
Facilities: Assembly1, Assembly2, Assembly3, Assembly4 and Assembly5
Parameter: Worst Case Single HAP
Limit: Less than ten (10) tons per twelve (12) consecutive month period

YEAR: _____

Month	Worst Case Single HAP	Worst Case Single HAP	Worst Case Single HAP
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: R-Vision, Inc.
Source Address: 2666 South Country Club Road, Warsaw, Indiana 46580
Mailing Address: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP No.: F 085-15108-00078

Months: _____ **to** _____ **Year:** _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

9 NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

9 THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

May 8, 2002

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD)
for a Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name:	**R-Vision, Inc.**
Source Location:	**2666 South Country Club Road, Warsaw, Indiana 46580**
County:	**Kosciusko**
SIC Code:	**3792**
Operation Permit No.:	**F 085-15108-00078**
Permit Reviewer:	**Edward A. Longenberger**

The Office of Air Quality (OAQ) has reviewed an application from R-Vision, Inc. relating to the construction and operation of a travel trailer and camper manufacturing source.

History

R-Vision, Inc. was issued a Minor Source Operating Permit (MSOP 085-11470-00078) on February 15, 2000. On December 4, 2001, the OAQ received an application to construct an additional production line (Line 5). During the review process, it was determined that with the addition of Line 5, the total source potential to emit of a single HAP (MEK) was greater than ten (10) tons per year, and therefore the source is subject to the Title V permitting requirements of 326 IAC 2-7 (Part 70). The source has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V major source levels. Therefore, a FESOP has been proposed pursuant to 326 IAC 2-8. This source was originally permitted under the name *Trail-Lite Division of R-Vision, Inc.*, but is now known simply as *R-Vision, Inc*.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) Line 1, installed in August 1997, consisting of the following equipment:

(1) One (1) woodworking area consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood1.1, controlled by a cyclone, identified as W1.1, exhausted to stack W1.1, capacity: 1,460 pounds of wood per hour.

(2) One (1) assembly area consisting of laminating, painting, coating and adhesive application, identified as Assembly1, exhausted to GV1.1, capacity: 2.5 trailers per hour.

(b) Line 2, installed in April 1998, consisting of the following equipment:

(1) One (1) woodworking area consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood2, controlled by a cyclone, identified as W2.1, exhausted to stack W2.1, capacity: 1,500 pounds of wood per hour.

(2) One (1) assembly and touch-up area, consisting of various aerosol cans, caulk guns, and hand-held cup guns, identified as Assembly2, exhausted to general ventilation, capacity: 2.5 trailers per hour.

(3) One (1) roll coating lamination process, identified as L2.1, exhausted to stack L2.1, capacity: 2.5 trailers per hour.

(c) Line 3, installed in November 1998, consisting of the following equipment:

(1) One (1) woodworking area, consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood3, controlled by a cyclone, identified as W3.1, exhausted to stack W3.1, capacity: 1,500 pounds of wood per hour.

(2) One (1) assembly and touch-up area, consisting of various aerosol cans, caulk guns, and hand-held cup guns, identified as Assembly3, exhausted to general ventilation, capacity: 2.5 trailers per hour.

(3) One (1) roll coating lamination process, identified as L3.1, exhausted to general ventilation, capacity: 2.5 trailers per hour.

(d) Line 4, installed in September 1999, consisting of the following equipment:

(1) One (1) woodworking area consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood4, controlled by a cyclone, identified as W4.1, exhausted to stack W4.1, capacity: 1,500 pounds of wood per hour.

(2) One (1) assembly area, consisting of various aerosol cans, brushing and spraying applications, identified as Assembly4, exhausted to general ventilation, capacity: 2.0 trailers per hour.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-8-4(11):

(e) Line 5, to be installed, consisting of the following equipment:

(1) One (1) woodworking area consisting of four (4) table saws, three (3) cut-off saws, one (1) band saw and one (1) belt sander, identified as Wood5, controlled by a cyclone, identified as W5.1, exhausting to stack W5.1, capacity: 1,500 pounds of wood per

hour.

(2) One (1) assembly area, consisting of various aerosol cans, brushing and spraying applications, identified as Assembly5, exhausting to the general ventilation, capacity: 2.0 trailers per hour.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment:

(1) One (1) MIG welding station, identified as MIG1.1, exhausted inside the plant, capacity: 1.0 pound of wire per hour. [326 IAC 6-3-2]

(2) One (1) oxyacetylene flame cutter, identified as FC1.1, exhausted inside the plant, capacity: 40.0 inches per minute. [326 IAC 6-3-2]

(3) One (1) MIG welding station, identified as MIG2.1, exhausted through general ventilation, capacity: 0.5 pounds of wire per hour. [326 IAC 6-3-2]

(4) Two (2) MIG welding stations, identified as MIG3.1 and MIG3.2, exhausted through general ventilation, capacity: 1.0 pound of wire per hour, each. [326 IAC 6-3-2]

(b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour, and with a total rating of 6.05 million British thermal units per hour:

(1) Four (4) natural gas fired space heaters, identified as H1.1 - H1.4, exhausted to stacks H1.1 - H1.4, capacity: 0.225, 0.125, 0.10, and 0.075 million British thermal units per hour, respectively.

(2) Four (4) natural gas fired space heaters, identified as H2.1 - H2.4, exhausted to stacks H2.1 - H2.4, capacity: 0.125 million British thermal units per hour, each.

(3) Five (5) natural gas fired space heaters, identified as H2.5 - H2.9, exhausted to stacks H2.5 - H2.9, capacity: 0.20 million British thermal units per hour, each.

(4) Five (5) natural gas fired space heaters, identified as H3.1 - H3.3, H3.5, and H3.6, exhausted to stacks H3.1 - H3.3, H3.5, and H3.6, capacity: 0.15 million British thermal units per hour, each.

(5) Seven (7) natural gas fired space heaters, identified as H3.4 and H3.7 - H3.12, exhausted to stacks H3.1 - H3.3 and H3.5 and H3.6, capacity: 0.125 million British thermal units per hour, each.

(6) Eight (8) natural gas fired space heaters, identified as H4.1 - H4.8, exhausted to stack H4.1 - H4.8, rated at 0.10 million British thermel unit per our, each.

(7) Eight (8) natural gas fired space heaters, identified as H5.1 through H5.8, exhausting

to Stacks H5.1 through H5.8, rated at 0.20 million British thermal units per hour, each.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) MSOP 085-11470-00078, issued on February 15, 2000; and

(b) MPR 085-12258-00078, issued on September 7, 2000.

All conditions from previous approvals were incorporated into this FESOP.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the FESOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete MSOP Revision application was received on December 4, 2001. During the review process, it was determined that with the construction of the proposed Line 5, the source would be subject to 326 IAC 2-7. The source has elected to obtain a FESOP pursuant to 326 IAC 2-8, therefore, the requirements of 326 IAC 2-7 are not applicable. Additional information was received on January 29, 2002 and February 27, 2002.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See pages 1 through 10 of Appendix A of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	**Potential To Emit** (tons/year)
PM	71.0
PM_{10}	71.2

Pollutant	Potential To Emit (tons/year)
SO_2	0.016
VOC	28.0
CO	2.23
NO_X	2.65

Note: For the purpose of determining Title V applicability for particulates, PM_{10}, not PM, is the regulated pollutant in consideration.

HAPS	Potential To Emit (tons/year)
MEK	11.3
Glycol Ethers	0.975
Vinyl Acetate	0.234
Dimethyl Phthalate	0.056
Styrene	0.375
Xylene	0.224
Ethyl Benzene	0.017
Methyl Methacrylate	0.037
Benzene	0.00006
Dichlorobenzene	0.00003
Formaldehyde	0.002
Hexane	0.048
Toluene	7.01
Lead Compounds	0.00001
Cadmium Compounds	0.00003
Chromium Compounds	0.00004
Manganese Compounds	0.001
Nickel Compounds	0.00006
TOTAL	20.3

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP (MEK) is equal to or greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD and Emission Offset applicability.

(c) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.

Actual Emissions

No previous emission data has been received from the source.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Federally Enforceable State Operating Permit.

	Potential to Emit After Issuance (tons/year)						
Process/facility	**PM**	**PM_{10}**	**SO_2**	**VOC**	**CO**	**NO_X**	**HAPS**
Assembly1	0.381	0.381	0.00	5.77	0.00	0.00	Single less than 10.0
Assembly2	0.381	0.381	0.00	6.84	0.00	0.00	
Assembly3	0.381	0.381	0.00	6.27	0.00	0.00	
Assembly4	0.079	0.079	0.00	5.14	0.00	0.00	
Assembly5	0.079	0.079	0.00	3.83	0.00	0.00	
Wood1.1	14.6	14.6	0.00	0.00	0.00	0.00	0.00
Wood2	11.8	11.8	0.00	0.00	0.00	0.00	0.00
Wood3	11.8	11.8	0.00	0.00	0.00	0.00	0.00
Wood4	11.8	11.8	0.00	0.00	0.00	0.00	0.00
Wood5	11.8	11.8	0.00	0.00	0.00	0.00	0.00
Insignificant Activities	2.12	2.27	0.016	0.146	2.23	2.65	0.052
Total PTE After Issuance	65.2	65.4	0.016	28.0	2.23	2.65	Single less than 10 Total less than 25

For the five (5) woodworking operations (Wood1.1 through Wood5), PM emissions represent the unrestricted potential to emit, or the maximum allowable PM emissions based on the hourly PM limit

prescribed by 326 IAC 6-3-2, whichever is smaller.

County Attainment Status

The source is located in Kosciusko County.

Pollutant	Status
PM_{10}	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Kosciusko County has been designated as attainment or unclassifiable for ozone.

(b) Kosciusko County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR Part 61 and 40 CFR Part 63) applicable to this source.

(c) This source is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, Subpart JJ, because the source is not a major source of HAPs pursuant to 40 CFR 63.2.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD)

All emission units at this source were constructed in 1997 or later. The total source potential to emit of PM, PM_{10}, SO_2, VOC, CO and NO_X are each less than two-hundred fifty (250) tons per year, and this source is not one of the 28 listed source categories under 326 IAC 2-2. Therefore, the requirements of 326 IAC 2-2 are not applicable.

326 IAC 2-4.1-1 (New Source Toxics Control)

The HAPs emissions from this source will be limited to less than ten (10) tons per year of any single HAP, and less than twenty-five (25) tons per year of a combination of all HAPs. Therefore, 326 IAC

2-4.1-1 is not applicable.

326 IAC 2-6 (Emission Reporting)

This source is located in Kosciusko County and the potential to emit CO, VOC, NO_X, PM_{10}, or SO_2 is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of a single HAP shall be limited to less than ten (10) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR Part 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

(a) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the one (1) woodworking area, identified as Wood1.1, shall not exceed 3.32 pounds per hour when operating at a process weight rate of 1,460 pounds per hour (0.73 tons per hour).

This limitation is based on the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The cyclone identified as W1.1 shall be in operation at all times that the one (1) woodworking area, identified as Wood1.1, is in operation, in order to comply with this limit. The PM emissions from Wood1.1 after controls are 0.926 pounds per hour which is less than the allowable PM emission rate of 3.32 pounds per hour. Therefore, the one (1) woodworking area, identified as Wood1.1, is in compliance with this rule.

(b) Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable PM emission rate from the four (4) woodworking areas, identified as Wood2, Wood3, Wood4, and Wood5, shall each not exceed 3.38 pounds per hour when operating at a process weight rate of 1,500 pounds per hour each (0.75 tons per hour each).

This limitation is based on the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

The PM emissions from each of the four (4) woodworking areas, identified as Wood2, Wood3, Wood4, and Wood5, are 2.70 pounds per hour, which is less than the allowable PM emission rate of 3.38 pounds per hour. Therefore, the four (4) woodworking areas, identified as Wood2, Wood3, Wood4, and Wood5, are each in compliance with this rule.

(c) The particulate matter (PM) from the assembly and touch-up operations, identified as Assembly1, Assembly2, Assembly3, Assembly4 and Assembly5 shall be each limited by the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicators when coating metal at the five (5) assembly and touch-up operations, identified as Assembly1, Assembly2, Assembly3, Assembly4 and Assembly5, shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for air dried or extreme performance coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the five (5) assembly and touch-up operations are in compliance with this requirement. Pursuant to MPR 085-12258, issued September 7, 2000, the glass cleaner and Crazy Clean cleaner do not fit the definition of a coating under 326 IAC 8-1-0.5(c). Therefore, these solvents are not subject to the requirements of 326 IAC 8-2-9.

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

Pursuant to 326 IAC 8-2-12, all coatings applied to wood shall be applied utilizing one or more of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to

substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

State Rule Applicability - Insignificant Activities

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the MIG welding and flame cutting operations shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Testing Requirements

No testing is required because all emission calculations were based on AP-42 emission factors, the MSDS for the coatings and/or a reasonable control efficiency for the cyclones. In addition, no single emission unit represents more than forty percent (40%) of the source wide potential to emit of any pollutant.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

The five (5) woodworking areas (Wood1.1, Wood2, Wood3, Wood4 and Wood5) have applicable compliance monitoring conditions as specified below:

(a) Visible emission notations of the stacks W1.1, W2.1, W3.1, W4.1 and W.5.1 exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For

processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

(b) An inspection shall be performed each calender quarter of all cyclones controlling the wood-working operations when venting to the atmosphere. A cyclone inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors.

(c) In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the cyclones for the five (5) woodworking areas (Wood1.1, Wood2, Wood3, Wood4 and Wood5) must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

Conclusion

The construction and operation of this travel trailer and camper manufacturing source shall be subject to the conditions of the attached proposed FESOP No.: **F 085-15108-00078**.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations
Line 1 and Line 2

Company Name: R-Vision Inc.
Address City IN Zip: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP: F 085-15108
Plt ID: 085-00078
Reviewer: Edward A. Longenberger
Date: December 4, 2001

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	Material
Line 1																	
Acrylic Laquer Thinner, 3613S	6.61	100.00%	0.0%	100.0%	0.0%	0.00%	0.00133	2.500	6.61	6.61	0.02	0.53	0.10	0.00	N/A	100%	fiberglass
Adhesive Spray, 3M 90	5.84	89.00%	0.0%	89.0%	0.0%	11.00%	0.00063	2.500	5.20	5.20	0.01	0.20	0.04	0.00	47.25	50%	wood
Body Filler 6370	9.95	26.00%	0.0%	26.0%	0.0%	74.00%	0.00273	2.500	2.59	2.59	0.02	0.42	0.08	0.11	3.50	50%	fiberglass
Rubbing Compound 711-G	10.00	56.00%	0.0%	56.0%	0.0%	6.90%	0.00273	2.500	5.60	5.60	0.04	0.92	0.17	0.07	81.16	50%	fiberglass
Paint B8951-L	8.88	57.70%	0.0%	57.7%	0.0%	27.90%	0.00297	2.500	5.12	5.12	0.04	0.91	0.17	0.06	18.36	50%	fiberglass
Glass Cleaner	8.26	99.90%	87.9%	12.0%	85.0%	0.10%	0.04688	2.500	6.61	0.99	0.12	2.79	0.51	0.00	991.20	50%	m,p,f
ABS Pipe Cement	7.26	78.00%	0.0%	78.0%	0.0%	22.00%	0.02344	2.500	5.66	5.66	0.33	7.96	1.45	0.00	25.74	100%	plastic
Crazy Clean Cleaner	8.17	93.10%	85.2%	7.9%	85.3%	0.40%	0.02992	2.500	4.39	0.65	0.05	1.16	0.21	0.09	161.36	50%	m,p,f
Acrylic Color Blender DXA100	7.11	96.50%	0.0%	96.5%	2.5%	48.00%	0.00391	2.500	7.04	6.86	0.07	1.61	0.29	0.01	14.29	50%	fiberglass
Gelcoat, Black GV30763	9.37	38.00%	0.0%	38.0%	0.0%	52.60%	0.00039	2.500	3.56	3.56	0.00	0.08	0.02	0.01	6.77	50%	fiberglass
Gelcoat, White GV42000	10.68	35.00%	0.0%	35.0%	0.0%	50.40%	0.00078	2.500	3.74	3.74	0.01	0.17	0.03	0.03	7.42	50%	fiberglass
Methyl Ethyl Ketone Peroxide	9.26	3.00%	0.0%	3.0%	0.0%	97.00%	0.00039	2.500	0.28	0.28	0.00	0.01	0.00	0.00	0.29	100%	fiberglass
Silicone Caulk SM5731	11.84	3.30%	0.0%	3.3%	0.0%	96.70%	0.07813	2.500	0.39	0.39	0.08	1.83	0.33	0.00	0.40	100%	m,p,f
Silicone Caulk SM5732	8.67	3.10%	0.0%	3.1%	0.0%	96.90%	0.04688	2.500	0.27	0.27	0.03	0.76	0.14	0.00	0.28	100%	m,p,f
Silicone Caulk SM5770	10.73	0.00%	0.0%	0.0%	0.0%	100.00%	0.21875	2.500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	m,p,f
Polyurethane Sealant SM7100	13.34	3.00%	0.0%	3.0%	0.0%	97.00%	0.37109	2.500	0.40	0.40	0.37	8.91	1.63	0.00	0.41	100%	m,p,f
Wood Glue, Wood Lock 40-0294	9.30	52.00%	51.8%	0.2%	51.8%	48.00%	0.25000	2.500	0.04	0.02	0.01	0.28	0.05	0.00	0.04	100%	wood
Clear PVC Solvent Cement	7.51	88.00%	0.0%	88.0%	0.0%	12.00%	0.00781	2.500	6.61	6.61	0.13	3.10	0.57	0.00	55.07	100%	plastic
								PM	Control Efficiency	0.00%							
State Potential Emissions			**Add worst case coating to all solvents**						**Uncontrolled**		**1.32**	**31.64**	**5.77**	**0.381**			
									Controlled		**1.32**	**31.64**	**5.77**	**0.381**			

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	Material
Line 2																	
Acrylic Laquer Thinner, 3613S	6.61	100.00%	0.0%	100.0%	0.0%	0.00%	0.00133	2.500	6.61	6.61	0.02	0.53	0.10	0.00	N/A	100%	fiberglass
Adhesive Spray, 3M 90	5.84	89.00%	0.0%	89.0%	0.0%	11.00%	0.00063	2.500	5.20	5.20	0.01	0.20	0.04	0.00	47.25	50%	wood
Body Filler 6370	9.95	26.00%	0.0%	26.0%	0.0%	74.00%	0.00273	2.500	2.59	2.59	0.02	0.42	0.08	0.11	3.50	50%	fiberglass
Rubbing Compound 711-G	10.00	56.00%	0.0%	56.0%	0.0%	6.90%	0.00273	2.500	5.60	5.60	0.04	0.92	0.17	0.07	81.16	50%	fiberglass
Paint B8951-L	8.88	57.70%	0.0%	57.7%	0.0%	27.90%	0.00297	2.500	5.12	5.12	0.04	0.91	0.17	0.06	18.36	50%	fiberglass
Glass Cleaner	8.26	99.90%	87.9%	12.0%	85.0%	0.10%	0.04688	2.500	6.61	0.99	0.12	2.79	0.51	0.00	991.20	50%	m,p,f
ABS Pipe Cement	7.26	78.00%	0.0%	78.0%	0.0%	22.00%	0.04063	2.500	5.66	5.66	0.58	13.80	2.52	0.00	25.74	100%	plastic
Crazy Clean Cleaner	8.17	93.10%	85.2%	7.9%	85.3%	0.40%	0.02992	2.500	4.39	0.65	0.05	1.16	0.21	0.09	161.36	50%	m,p,f
Acrylic Color Blender DXA100	7.11	96.50%	0.0%	96.5%	2.5%	48.00%	0.00391	2.500	7.04	6.86	0.07	1.61	0.29	0.01	14.29	50%	fiberglass
Gelcoat, Black GV30763	9.37	38.00%	0.0%	38.0%	0.0%	52.60%	0.00039	2.500	3.56	3.56	0.00	0.08	0.02	0.01	6.77	50%	fiberglass
Gelcoat, White GV42000	10.68	35.00%	0.0%	35.0%	0.0%	50.40%	0.00078	2.500	3.74	3.74	0.01	0.17	0.03	0.03	7.42	50%	fiberglass
Methyl Ethyl Ketone Peroxide	9.26	3.00%	0.0%	3.0%	0.0%	97.00%	0.00039	2.500	0.28	0.28	0.00	0.01	0.00	0.00	0.29	100%	fiberglass
Silicone Caulk SM5731	11.84	3.30%	0.0%	3.3%	0.0%	96.70%	0.07813	2.500	0.39	0.39	0.08	1.83	0.33	0.00	0.40	100%	m,p,f
Silicone Caulk SM5732	8.67	3.10%	0.0%	3.1%	0.0%	96.90%	0.04688	2.500	0.27	0.27	0.03	0.76	0.14	0.00	0.28	100%	m,p,f
Silicone Caulk SM5770	10.73	0.00%	0.0%	0.0%	0.0%	100.00%	0.21875	2.500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	m,p,f
Polyurethane Sealant SM7100	13.34	3.00%	0.0%	3.0%	0.0%	97.00%	0.37109	2.500	0.40	0.40	0.37	8.91	1.63	0.00	0.41	100%	m,p,f
Wood Glue, Wood Lock 40-0294	9.30	52.00%	51.8%	0.2%	51.8%	48.00%	0.25000	2.500	0.04	0.02	0.01	0.28	0.05	0.00	0.04	100%	wood
Clear PVC Solvent Cement	7.51	88.00%	0.0%	88.0%	0.0%	12.00%	0.00781	2.500	6.61	6.61	0.13	3.10	0.57	0.00	55.07	100%	plastic
								PM	Control Efficiency	0.00%							
State Potential Emissions			**Add worst case coating to all solvents**						**Uncontrolled**		**1.56**	**37.48**	**6.84**	**0.381**			
									Controlled		**1.56**	**37.48**	**6.84**	**0.381**			

METHODOLOGY

The roll coating laminating process (L2.1 and L3.1) emit negligible VOC and HAP emissions.

m,p,f = metal,plastic,fiberglass

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations
Lines 3, 4 and 5

Company Name: R-Vision Inc.
Address City IN Zip: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP: F 085-15108
Plt ID: 085-00078
Reviewer: Edward A. Longenberger
Date: December 4, 2001

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	Material
Line 3																	
Acrylic Laquer Thinner, 3613S	6.61	100.00%	0.0%	100.0%	0.0%	0.00%	0.00133	2.500	6.61	6.61	0.02	0.53	0.10	0.00	N/A	100%	fiberglass
Adhesive Spray, 3M 90	5.84	89.00%	0.0%	89.0%	0.0%	11.00%	0.00063	2.500	5.20	5.20	0.01	0.20	0.04	0.00	47.25	50%	wood
Body Filler 6370	9.95	26.00%	0.0%	26.0%	0.0%	74.00%	0.00273	2.500	2.59	2.59	0.02	0.42	0.08	0.11	3.50	50%	fiberglass
Rubbing Compound 711-G	10.00	56.00%	0.0%	56.0%	0.0%	6.90%	0.00273	2.500	5.60	5.60	0.04	0.92	0.17	0.07	81.16	50%	fiberglass
Paint B8951-L	8.88	57.70%	0.0%	57.7%	0.0%	27.90%	0.00297	2.500	5.12	5.12	0.04	0.91	0.17	0.06	18.36	50%	fiberglass
Glass Cleaner	8.26	99.90%	87.9%	12.0%	85.0%	0.10%	0.04688	2.500	6.61	0.99	0.12	2.79	0.51	0.00	991.20	50%	m,p,f
ABS Pipe Cement	7.26	78.00%	0.0%	78.0%	0.0%	22.00%	0.04063	2.500	5.66	5.66	0.58	13.80	2.52	0.00	25.74	100%	plastic
Crazy Clean Cleaner	8.17	93.10%	85.2%	7.9%	85.3%	0.40%	0.02992	2.500	4.39	0.65	0.05	1.16	0.21	0.09	161.36	50%	m,p,f
Acrylic Color Blender DXA100	7.11	96.50%	0.0%	96.5%	2.5%	48.00%	0.00391	2.500	7.04	6.86	0.07	1.61	0.29	0.01	14.29	50%	fiberglass
Gelcoat, Black GV30763	9.37	38.00%	0.0%	38.0%	0.0%	52.60%	0.00039	2.500	3.56	3.56	0.00	0.08	0.02	0.01	6.77	50%	fiberglass
Gelcoat, White GV42000	10.68	35.00%	0.0%	35.0%	0.0%	50.40%	0.00078	2.500	3.74	3.74	0.01	0.17	0.03	0.03	7.42	50%	fiberglass
Methyl Ethyl Ketone Peroxide	9.26	3.00%	0.0%	3.0%	0.0%	97.00%	0.00039	2.500	0.28	0.28	0.00	0.01	0.00	0.00	0.29	100%	fiberglass
Silicone Caulk SM5731	11.84	3.30%	0.0%	3.3%	0.0%	96.70%	0.07813	2.500	0.39	0.39	0.08	1.83	0.33	0.00	0.40	100%	m,p,f
Silicone Caulk SM5732	8.67	3.10%	0.0%	3.1%	0.0%	96.90%	0.04688	2.500	0.27	0.27	0.03	0.76	0.14	0.00	0.28	100%	m,p,f
Silicone Caulk SM5770	10.73	0.00%	0.0%	0.0%	0.0%	100.00%	0.21875	2.500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	m,p,f
Polyurethane Sealant SM7100	13.34	3.00%	0.0%	3.0%	0.0%	97.00%	0.37109	2.500	0.40	0.40	0.37	8.91	1.63	0.00	0.41	100%	m,p,f
Wood Glue, Wood Lock 40-0294	9.30	52.00%	51.8%	0.2%	51.8%	48.00%	0.25000	2.500	0.04	0.02	0.01	0.28	0.05	0.00	0.04	100%	wood
								PM	Control Efficiency	0.00%							
State Potential Emissions			**Add worst case coating to all solvents**						**Uncontrolled**		**1.43**	**34.38**	**6.27**	**0.381**			
									Controlled		**1.43**	**34.38**	**6.27**	**0.381**			

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	Material
Line 4																	
Adhesive Spray, 3M 90	5.84	89.00%	0.0%	89.0%	0.0%	11.00%	0.00063	2.000	5.20	5.20	0.01	0.16	0.03	0.00	47.25	50%	wood
Glass Cleaner	8.26	99.90%	87.9%	12.0%	0.0%	0.10%	0.04688	2.000	0.99	0.99	0.09	2.23	0.41	0.00	991.20	50%	m,p,f
ABS Pipe Cement	7.26	78.00%	0.0%	78.0%	0.0%	22.00%	0.04844	2.000	5.66	5.66	0.55	13.17	2.40	0.00	25.74	100%	plastic
Crazy Clean Cleaner	8.34	93.10%	85.2%	7.9%	85.3%	6.90%	0.02992	2.000	4.48	0.66	0.04	0.95	0.17	0.08	9.55	50%	m,p,f
Silicone Caulk SM5731	11.84	3.30%	0.0%	3.3%	0.0%	96.70%	0.07813	2.000	0.39	0.39	0.06	1.47	0.27	0.00	0.40	100%	m,p,f
Silicone Caulk SM5732	8.67	3.10%	0.0%	3.1%	0.0%	96.90%	0.21875	2.000	0.27	0.27	0.12	2.82	0.52	0.00	0.28	100%	m,p,f
Silicone Caulk SM5770	10.73	0.00%	0.0%	0.0%	0.0%	100.00%	0.04688	2.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	m,p,f
Polyurethane Sealant SM7100	13.34	3.00%	0.0%	3.0%	0.0%	97.00%	0.37109	2.000	0.40	0.40	0.30	7.13	1.30	0.00	0.41	100%	m,p,f
Wood Glue, Wood Lock 40-0294	9.30	52.00%	51.8%	0.2%	51.8%	48.00%	0.25000	2.000	0.04	0.02	0.01	0.22	0.04	0.00	0.04	100%	wood
								PM	Control Efficiency	0.00%							
State Potential Emissions			**Add worst case coating to all solvents**						**Uncontrolled**		**1.17**	**28.14**	**5.14**	**0.079**			
									Controlled		**1.17**	**28.14**	**5.14**	**0.079**			

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	Material
Line 5																	
Adhesive Spray 3M 90	5.84	89.00%	12.0%	77.0%	12.0%	11.00%	0.00063	2.000	5.11	4.50	0.01	0.14	0.02	0.00	40.88	50%	wood
C-31 Cyclo Glass Clean	8.26	99.90%	87.9%	12.0%	87.9%	0.10%	0.04688	2.000	8.19	0.99	0.09	2.23	0.41	0.00	991.20	50%	m,p,f
ABS Pipe Cement	7.26	78.00%	0.0%	78.0%	0.0%	22.00%	0.04844	2.000	5.66	5.66	0.55	13.17	2.40	0.00	25.74	100%	plastic
Crazy Clean Cleaner	8.34	93.10%	85.2%	7.9%	85.3%	6.90%	0.02992	2.000	4.48	0.66	0.04	0.95	0.17	0.08	9.55	50%	m,p,f
Silicone Caulk SM5731	11.84	3.30%	0.0%	3.3%	0.0%	96.70%	0.07813	2.000	0.39	0.39	0.06	1.47	0.27	0.00	0.40	100%	m,p,f
Silicone Caulk SM5732	8.67	3.10%	0.0%	3.1%	0.0%	96.90%	0.21875	2.000	0.27	0.27	0.12	2.82	0.52	0.00	0.28	100%	m,p,f
Silicone Caulk SM5770	10.73	0.00%	0.0%	0.0%	0.0%	100.00%	0.04688	2.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	m,p,f
Wood Glue, Wood Lock 40-0294	9.30	52.00%	51.8%	0.2%	51.8%	48.00%	0.25000	2.000	0.04	0.02	0.01	0.22	0.04	0.00	0.04	100%	wood
								PM	Control Efficiency	0.00%							
State Potential Emissions			**Add worst case coating to all solvents**						**Uncontrolled**		**0.87**	**20.99**	**3.83**	**0.079**			
									Controlled		**0.87**	**20.99**	**3.83**	**0.079**			

METHODOLOGY

The roll coating laminating process (L2.1 and L3.1) emit negligible VOC and HAP emissions.

m,p,f = metal,plastic,fiberglass

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
VOC and Particulate
Summary of PM and VOC Emissions from Surface Coating Operations

Company Name: R-Vision Inc.
Address City IN Zip: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP: F 085-15108
Plt ID: 085-00078
Reviewer: Edward A. Longenberger
Date: December 4, 2001

Production Line	Potential VOC (pounds/hour)	Potential VOC (pounds/day)	Potential VOC (tons/year)	Potential PM (tons/year)
Line 1	1.32	31.64	5.77	0.381
Line 2	1.56	37.48	6.84	0.381
Line 3	1.43	34.38	6.27	0.381
Line 4	1.17	28.14	5.14	0.079
Line 5	0.87	20.99	3.83	0.079
Total	**6.36**	**152.6**	**27.85**	**1.30**

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations
Line 1 and Line 2

Company Name: R-Vision Inc.
Address City IN Zip: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP: F 085-15108
Plt ID: 085-00078
Reviewer: Edward A. Longenberger
Date: December 4, 2001

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	Material
Line 1																	
Acrylic Laquer Thinner, 3613S	6.61	100.00%	0.0%	100.0%	0.0%	0.00%	0.00133	2.500	6.61	6.61	0.02	0.53	0.10	0.00	N/A	100%	fiberglass
Adhesive Spray, 3M 90	5.84	89.00%	0.0%	89.0%	0.0%	11.00%	0.00063	2.500	5.20	5.20	0.01	0.20	0.04	0.00	47.25	50%	wood
Body Filler 6370	9.95	26.00%	0.0%	26.0%	0.0%	74.00%	0.00273	2.500	2.59	2.59	0.02	0.42	0.08	0.11	3.50	50%	fiberglass
Rubbing Compound 711-G	10.00	56.00%	0.0%	56.0%	0.0%	6.90%	0.00273	2.500	5.60	5.60	0.04	0.92	0.17	0.07	81.16	50%	fiberglass
Paint B8951-L	8.88	57.70%	0.0%	57.7%	0.0%	27.90%	0.00297	2.500	5.12	5.12	0.04	0.91	0.17	0.06	18.36	50%	fiberglass
Glass Cleaner	8.26	99.90%	87.9%	12.0%	85.0%	0.10%	0.04688	2.500	6.61	0.99	0.12	2.79	0.51	0.00	991.20	50%	m,p,f
ABS Pipe Cement	7.26	78.00%	0.0%	78.0%	0.0%	22.00%	0.02344	2.500	5.66	5.66	0.33	7.96	1.45	0.00	25.74	100%	plastic
Crazy Clean Cleaner	8.17	93.10%	85.2%	7.9%	85.3%	0.40%	0.02992	2.500	4.39	0.65	0.05	1.16	0.21	0.09	161.36	50%	m,p,f
Acrylic Color Blender DXA100	7.11	96.50%	0.0%	96.5%	2.5%	48.00%	0.00391	2.500	7.04	6.86	0.07	1.61	0.29	0.01	14.29	50%	fiberglass
Gelcoat, Black GV30763	9.37	38.00%	0.0%	38.0%	0.0%	52.60%	0.00039	2.500	3.56	3.56	0.00	0.08	0.02	0.01	6.77	50%	fiberglass
Gelcoat, White GV42000	10.68	35.00%	0.0%	35.0%	0.0%	50.40%	0.00078	2.500	3.74	3.74	0.01	0.17	0.03	0.03	7.42	50%	fiberglass
Methyl Ethyl Ketone Peroxide	9.26	3.00%	0.0%	3.0%	0.0%	97.00%	0.00039	2.500	0.28	0.28	0.00	0.01	0.00	0.00	0.29	100%	fiberglass
Silicone Caulk SM5731	11.84	3.30%	0.0%	3.3%	0.0%	96.70%	0.07813	2.500	0.39	0.39	0.08	1.83	0.33	0.00	0.40	100%	m,p,f
Silicone Caulk SM5732	8.67	3.10%	0.0%	3.1%	0.0%	96.90%	0.04688	2.500	0.27	0.27	0.03	0.76	0.14	0.00	0.28	100%	m,p,f
Silicone Caulk SM5770	10.73	0.00%	0.0%	0.0%	0.0%	100.00%	0.21875	2.500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	m,p,f
Polyurethane Sealant SM7100	13.34	3.00%	0.0%	3.0%	0.0%	97.00%	0.37109	2.500	0.40	0.40	0.37	8.91	1.63	0.00	0.41	100%	m,p,f
Wood Glue, Wood Lock 40-0294	9.30	52.00%	51.8%	0.2%	51.8%	48.00%	0.25000	2.500	0.04	0.02	0.01	0.28	0.05	0.00	0.04	100%	wood
Clear PVC Solvent Cement	7.51	88.00%	0.0%	88.0%	0.0%	12.00%	0.00781	2.500	6.61	6.61	0.13	3.10	0.57	0.00	55.07	100%	plastic
								PM	Control Efficiency	0.00%							
State Potential Emissions			**Add worst case coating to all solvents**						**Uncontrolled**		**1.32**	**31.64**	**5.77**	**0.381**			
									Controlled		**1.32**	**31.64**	**5.77**	**0.381**			

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	Material
Line 2																	
Acrylic Laquer Thinner, 3613S	6.61	100.00%	0.0%	100.0%	0.0%	0.00%	0.00133	2.500	6.61	6.61	0.02	0.53	0.10	0.00	N/A	100%	fiberglass
Adhesive Spray, 3M 90	5.84	89.00%	0.0%	89.0%	0.0%	11.00%	0.00063	2.500	5.20	5.20	0.01	0.20	0.04	0.00	47.25	50%	wood
Body Filler 6370	9.95	26.00%	0.0%	26.0%	0.0%	74.00%	0.00273	2.500	2.59	2.59	0.02	0.42	0.08	0.11	3.50	50%	fiberglass
Rubbing Compound 711-G	10.00	56.00%	0.0%	56.0%	0.0%	6.90%	0.00273	2.500	5.60	5.60	0.04	0.92	0.17	0.07	81.16	50%	fiberglass
Paint B8951-L	8.88	57.70%	0.0%	57.7%	0.0%	27.90%	0.00297	2.500	5.12	5.12	0.04	0.91	0.17	0.06	18.36	50%	fiberglass
Glass Cleaner	8.26	99.90%	87.9%	12.0%	85.0%	0.10%	0.04688	2.500	6.61	0.99	0.12	2.79	0.51	0.00	991.20	50%	m,p,f
ABS Pipe Cement	7.26	78.00%	0.0%	78.0%	0.0%	22.00%	0.04063	2.500	5.66	5.66	0.58	13.80	2.52	0.00	25.74	100%	plastic
Crazy Clean Cleaner	8.17	93.10%	85.2%	7.9%	85.3%	0.40%	0.02992	2.500	4.39	0.65	0.05	1.16	0.21	0.09	161.36	50%	m,p,f
Acrylic Color Blender DXA100	7.11	96.50%	0.0%	96.5%	2.5%	48.00%	0.00391	2.500	7.04	6.86	0.07	1.61	0.29	0.01	14.29	50%	fiberglass
Gelcoat, Black GV30763	9.37	38.00%	0.0%	38.0%	0.0%	52.60%	0.00039	2.500	3.56	3.56	0.00	0.08	0.02	0.01	6.77	50%	fiberglass
Gelcoat, White GV42000	10.68	35.00%	0.0%	35.0%	0.0%	50.40%	0.00078	2.500	3.74	3.74	0.01	0.17	0.03	0.03	7.42	50%	fiberglass
Methyl Ethyl Ketone Peroxide	9.26	3.00%	0.0%	3.0%	0.0%	97.00%	0.00039	2.500	0.28	0.28	0.00	0.01	0.00	0.00	0.29	100%	fiberglass
Silicone Caulk SM5731	11.84	3.30%	0.0%	3.3%	0.0%	96.70%	0.07813	2.500	0.39	0.39	0.08	1.83	0.33	0.00	0.40	100%	m,p,f
Silicone Caulk SM5732	8.67	3.10%	0.0%	3.1%	0.0%	96.90%	0.04688	2.500	0.27	0.27	0.03	0.76	0.14	0.00	0.28	100%	m,p,f
Silicone Caulk SM5770	10.73	0.00%	0.0%	0.0%	0.0%	100.00%	0.21875	2.500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	m,p,f
Polyurethane Sealant SM7100	13.34	3.00%	0.0%	3.0%	0.0%	97.00%	0.37109	2.500	0.40	0.40	0.37	8.91	1.63	0.00	0.41	100%	m,p,f
Wood Glue, Wood Lock 40-0294	9.30	52.00%	51.8%	0.2%	51.8%	48.00%	0.25000	2.500	0.04	0.02	0.01	0.28	0.05	0.00	0.04	100%	wood
Clear PVC Solvent Cement	7.51	88.00%	0.0%	88.0%	0.0%	12.00%	0.00781	2.500	6.61	6.61	0.13	3.10	0.57	0.00	55.07	100%	plastic
								PM	Control Efficiency	0.00%							
State Potential Emissions			**Add worst case coating to all solvents**						**Uncontrolled**		**1.56**	**37.48**	**6.84**	**0.381**			
									Controlled		**1.56**	**37.48**	**6.84**	**0.381**			

METHODOLOGY

The roll coating laminating process (L2.1 and L3.1) emit negligible VOC and HAP emissions.

m,p,f = metal,plastic,fiberglass

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations
Lines 3, 4 and 5

Company Name: R-Vision Inc.
Address City IN Zip: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP: F 085-15108
Plt ID: 085-00078
Reviewer: Edward A. Longenberger
Date: December 4, 2001

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	Material
Line 3																	
Acrylic Laquer Thinner, 3613S	6.61	100.00%	0.0%	100.0%	0.0%	0.00%	0.00133	2.500	6.61	6.61	0.02	0.53	0.10	0.00	N/A	100%	fiberglass
Adhesive Spray, 3M 90	5.84	89.00%	0.0%	89.0%	0.0%	11.00%	0.00063	2.500	5.20	5.20	0.01	0.20	0.04	0.00	47.25	50%	wood
Body Filler 6370	9.95	26.00%	0.0%	26.0%	0.0%	74.00%	0.00273	2.500	2.59	2.59	0.02	0.42	0.08	0.11	3.50	50%	fiberglass
Rubbing Compound 711-G	10.00	56.00%	0.0%	56.0%	0.0%	6.90%	0.00273	2.500	5.60	5.60	0.04	0.92	0.17	0.07	81.16	50%	fiberglass
Paint B8951-L	8.88	57.70%	0.0%	57.7%	0.0%	27.90%	0.00297	2.500	5.12	5.12	0.04	0.91	0.17	0.06	18.36	50%	fiberglass
Glass Cleaner	8.26	99.90%	87.9%	12.0%	85.0%	0.10%	0.04688	2.500	6.61	0.99	0.12	2.79	0.51	0.00	991.20	50%	m,p,f
ABS Pipe Cement	7.26	78.00%	0.0%	78.0%	0.0%	22.00%	0.04063	2.500	5.66	5.66	0.58	13.80	2.52	0.00	25.74	100%	plastic
Crazy Clean Cleaner	8.17	93.10%	85.2%	7.9%	85.3%	0.40%	0.02992	2.500	4.39	0.65	0.05	1.16	0.21	0.09	161.36	50%	m,p,f
Acrylic Color Blender DXA100	7.11	96.50%	0.0%	96.5%	2.5%	48.00%	0.00391	2.500	7.04	6.86	0.07	1.61	0.29	0.01	14.29	50%	fiberglass
Gelcoat, Black GV30763	9.37	38.00%	0.0%	38.0%	0.0%	52.60%	0.00039	2.500	3.56	3.56	0.00	0.08	0.02	0.01	6.77	50%	fiberglass
Gelcoat, White GV42000	10.68	35.00%	0.0%	35.0%	0.0%	50.40%	0.00078	2.500	3.74	3.74	0.01	0.17	0.03	0.03	7.42	50%	fiberglass
Methyl Ethyl Ketone Peroxide	9.26	3.00%	0.0%	3.0%	0.0%	97.00%	0.00039	2.500	0.28	0.28	0.00	0.01	0.00	0.00	0.29	100%	fiberglass
Silicone Caulk SM5731	11.84	3.30%	0.0%	3.3%	0.0%	96.70%	0.07813	2.500	0.39	0.39	0.08	1.83	0.33	0.00	0.40	100%	m,p,f
Silicone Caulk SM5732	8.67	3.10%	0.0%	3.1%	0.0%	96.90%	0.04688	2.500	0.27	0.27	0.03	0.76	0.14	0.00	0.28	100%	m,p,f
Silicone Caulk SM5770	10.73	0.00%	0.0%	0.0%	0.0%	100.00%	0.21875	2.500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	m,p,f
Polyurethane Sealant SM7100	13.34	3.00%	0.0%	3.0%	0.0%	97.00%	0.37109	2.500	0.40	0.40	0.37	8.91	1.63	0.00	0.41	100%	m,p,f
Wood Glue, Wood Lock 40-0294	9.30	52.00%	51.8%	0.2%	51.8%	48.00%	0.25000	2.500	0.04	0.02	0.01	0.28	0.05	0.00	0.04	100%	wood
								PM	Control Efficiency	0.00%							
State Potential Emissions			**Add worst case coating to all solvents**						**Uncontrolled**		**1.43**	**34.38**	**6.27**	**0.381**			
									Controlled		**1.43**	**34.38**	**6.27**	**0.381**			

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	Material
Line 4																	
Adhesive Spray, 3M 90	5.84	89.00%	0.0%	89.0%	0.0%	11.00%	0.00063	2.000	5.20	5.20	0.01	0.16	0.03	0.00	47.25	50%	wood
Glass Cleaner	8.26	99.90%	87.9%	12.0%	0.0%	0.10%	0.04688	2.000	0.99	0.99	0.09	2.23	0.41	0.00	991.20	50%	m,p,f
ABS Pipe Cement	7.26	78.00%	0.0%	78.0%	0.0%	22.00%	0.04844	2.000	5.66	5.66	0.55	13.17	2.40	0.00	25.74	100%	plastic
Crazy Clean Cleaner	8.34	93.10%	85.2%	7.9%	85.3%	6.90%	0.02992	2.000	4.48	0.66	0.04	0.95	0.17	0.08	9.55	50%	m,p,f
Silicone Caulk SM5731	11.84	3.30%	0.0%	3.3%	0.0%	96.70%	0.07813	2.000	0.39	0.39	0.06	1.47	0.27	0.00	0.40	100%	m,p,f
Silicone Caulk SM5732	8.67	3.10%	0.0%	3.1%	0.0%	96.90%	0.21875	2.000	0.27	0.27	0.12	2.82	0.52	0.00	0.28	100%	m,p,f
Silicone Caulk SM5770	10.73	0.00%	0.0%	0.0%	0.0%	100.00%	0.04688	2.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	m,p,f
Polyurethane Sealant SM7100	13.34	3.00%	0.0%	3.0%	0.0%	97.00%	0.37109	2.000	0.40	0.40	0.30	7.13	1.30	0.00	0.41	100%	m,p,f
Wood Glue, Wood Lock 40-0294	9.30	52.00%	51.8%	0.2%	51.8%	48.00%	0.25000	2.000	0.04	0.02	0.01	0.22	0.04	0.00	0.04	100%	wood
								PM	Control Efficiency	0.00%							
State Potential Emissions			**Add worst case coating to all solvents**						**Uncontrolled**		**1.17**	**28.14**	**5.14**	**0.079**			
									Controlled		**1.17**	**28.14**	**5.14**	**0.079**			

Material	Density (lbs/gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (units/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC (pounds per hour)	Potential VOC (pounds per day)	Potential VOC (tons per year)	Particulate Potential (tons/yr)	lbs VOC/gal solids	Transfer Efficiency	Material
Line 5																	
Adhesive Spray 3M 90	5.84	89.00%	12.0%	77.0%	12.0%	11.00%	0.00063	2.000	5.11	4.50	0.01	0.14	0.02	0.00	40.88	50%	wood
C-31 Cyclo Glass Clean	8.26	99.90%	87.9%	12.0%	87.9%	0.10%	0.04688	2.000	8.19	0.99	0.09	2.23	0.41	0.00	991.20	50%	m,p,f
ABS Pipe Cement	7.26	78.00%	0.0%	78.0%	0.0%	22.00%	0.04844	2.000	5.66	5.66	0.55	13.17	2.40	0.00	25.74	100%	plastic
Crazy Clean Cleaner	8.34	93.10%	85.2%	7.9%	85.3%	6.90%	0.02992	2.000	4.48	0.66	0.04	0.95	0.17	0.08	9.55	50%	m,p,f
Silicone Caulk SM5731	11.84	3.30%	0.0%	3.3%	0.0%	96.70%	0.07813	2.000	0.39	0.39	0.06	1.47	0.27	0.00	0.40	100%	m,p,f
Silicone Caulk SM5732	8.67	3.10%	0.0%	3.1%	0.0%	96.90%	0.21875	2.000	0.27	0.27	0.12	2.82	0.52	0.00	0.28	100%	m,p,f
Silicone Caulk SM5770	10.73	0.00%	0.0%	0.0%	0.0%	100.00%	0.04688	2.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	m,p,f
Wood Glue, Wood Lock 40-0294	9.30	52.00%	51.8%	0.2%	51.8%	48.00%	0.25000	2.000	0.04	0.02	0.01	0.22	0.04	0.00	0.04	100%	wood
								PM	Control Efficiency	0.00%							
State Potential Emissions			**Add worst case coating to all solvents**						**Uncontrolled**		**0.87**	**20.99**	**3.83**	**0.079**			
									Controlled		**0.87**	**20.99**	**3.83**	**0.079**			

METHODOLOGY

The roll coating laminating process (L2.1 and L3.1) emit negligible VOC and HAP emissions.

m,p,f = metal,plastic,fiberglass

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Appendix A: Emissions Calculations
VOC and Particulate
Summary of PM and VOC Emissions from Surface Coating Operations

Company Name: R-Vision Inc.
Address City IN Zip: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP: F 085-15108
Plt ID: 085-00078
Reviewer: Edward A. Longenberger
Date: December 4, 2001

Production Line	Potential VOC (pounds/hour)	Potential VOC (pounds/day)	Potential VOC (tons/year)	Potential PM (tons/year)
Line 1	1.32	31.64	5.77	0.381
Line 2	1.56	37.48	6.84	0.381
Line 3	1.43	34.38	6.27	0.381
Line 4	1.17	28.14	5.14	0.079
Line 5	0.87	20.99	3.83	0.079
Total	**6.36**	**152.6**	**27.85**	**1.30**

Appendix A: Emission Calculations
HAP Emission Calculations
Line 1 and Line 2

Company Name: R-Vision Inc.
Address City IN Zip: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP: F 085-15108
Plt ID: 085-00078
Reviewer: Edward A. Longenberger
Date: December 4, 2001

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % MEK	Weight % Glycol Ethers	Weight % Toluene	Weight % Vinyl Acetate	Weight % Dimethyl-phthalate	Weight % Styrene	Weight % Xylene	Weight % Ethyl Benzene	Weight % Methyl Methacrylate	MEK Emissions (tons/yr)	Glycol Ether Emissions (tons/yr)	Toluene Emissions (tons/yr)	Vinyl Acetate Emissions (tons/yr)	Dimethyl-phthalate Emissions (tons/yr)	Styrene Emissions (tons/yr)	Xylene Emissions (tons/yr)	Ethyl Benzene Emissions (tons/yr)	Methyl Methacrylate Emissions (tons/yr)
Line 1																					
Acrylic Laquer Thinner, 3613S	6.61	0.00133	2.5	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adhesive Spray, 3M 90	5.84	0.00063	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Body Filler 6370	9.95	0.00273	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00
Rubbing Compound 711-G	10.00	0.00273	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paint B8951-L	8.88	0.00297	2.5	5.00%	0.00%	20.00%	0.00%	0.00%	0.00%	10.00%	2.00%	2.00%	0.01	0.00	0.06	0.00	0.00	0.00	0.03	0.01	0.01
Glass Cleaner	8.26	0.04688	2.5	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ABS Pipe Cement	7.26	0.02344	2.5	75.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crazy Clean Cleaner	8.34	0.02992	2.5	0.00%	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00
Acrylic Color Blender DXA100	7.11	0.00391	2.5	2.00%	0.00%	45.00%	0.00%	0.00%	0.00%	15.00%	0.00%	0.00%	0.01	0.00	0.14	0.00	0.00	0.00	0.05	0.00	0.00
Gelcoat, Black GV30763	9.37	0.00039	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	5.00%	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
Gelcoat, White GV42000	10.68	0.00078	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	5.00%	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00
Methyl Ethyl Ketone Peroxide	9.26	0.00039	2.5	0.00%	0.00%	0.00%	0.00%	47.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Silicone Caulk SM5731	11.84	0.07813	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silicone Caulk SM5732	8.67	0.04688	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silicone Caulk SM5770	10.73	0.21875	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Polyurethane Sealant SM7100	13.34	0.37109	2.5	0.00%	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	1.63	0.00	0.00	0.00	0.00	0.00	0.00
Wood Glue, Wood Lock 40-0294	9.30	0.25000	2.5	0.00%	0.00%	0.00%	0.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Clear PVC Solvent Cement	7.51	0.00781	2.5	55.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												Individual Total	**1.771**	**0.212**	**1.904**	**0.051**	**0.019**	**0.125**	**0.075**	**0.006**	**0.012**
												Overall Total	**4.174**								

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % MEK	Weight % Glycol Ethers	Weight % Toluene	Weight % Vinyl Acetate	Weight % Dimethyl-phthalate	Weight % Styrene	Weight % Xylene	Weight % Ethyl Benzene	Weight % Methyl Methacrylate	MEK Emissions (tons/yr)	Glycol Ether Emissions (tons/yr)	Toluene Emissions (tons/yr)	Vinyl Acetate Emissions (tons/yr)	Dimethyl-phthalate Emissions (tons/yr)	Styrene Emissions (tons/yr)	Xylene Emissions (tons/yr)	Ethyl Benzene Emissions (tons/yr)	Methyl Methacrylate Emissions (tons/yr)
Line 2																					
Acrylic Laquer Thinner, 3613S	6.61	0.00133	2.5	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adhesive Spray, 3M 90	5.84	0.00063	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Body Filler 6370	9.95	0.00273	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00
Rubbing Compound 711-G	10.00	0.00273	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paint B8951-L	8.88	0.00297	2.5	5.00%	0.00%	20.00%	0.00%	0.00%	0.00%	10.00%	2.00%	2.00%	0.01	0.00	0.06	0.00	0.00	0.00	0.03	0.01	0.01
Glass Cleaner	8.26	0.04688	2.5	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ABS Pipe Cement	7.26	0.04063	2.5	75.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crazy Clean Cleaner	8.34	0.02992	2.5	0.00%	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00
Acrylic Color Blender DXA100	7.11	0.00391	2.5	2.00%	0.00%	45.00%	0.00%	0.00%	0.00%	15.00%	0.00%	0.00%	0.01	0.00	0.14	0.00	0.00	0.00	0.05	0.00	0.00
Gelcoat, Black GV30763	9.37	0.00039	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	5.00%	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
Gelcoat, White GV42000	10.68	0.00078	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	5.00%	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00
Methyl Ethyl Ketone Peroxide	9.26	0.00039	2.5	0.00%	0.00%	0.00%	0.00%	47.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Silicone Caulk SM5731	11.84	0.07813	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silicone Caulk SM5732	8.67	0.04688	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silicone Caulk SM5770	10.73	0.21875	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Polyurethane Sealant SM7100	13.34	0.37109	2.5	0.00%	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	1.63	0.00	0.00	0.00	0.00	0.00	0.00
Wood Glue, Wood Lock 40-0294	9.30	0.25000	2.5	0.00%	0.00%	0.00%	0.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
												Individual Total	**2.443**	**0.212**	**1.904**	**0.051**	**0.019**	**0.125**	**0.075**	**0.006**	**0.012**
												Overall Total	**4.846**								

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emission Calculations
HAP Emission Calculations
Lines 3, 4 and 5

Company Name: R-Vision Inc.
Address City IN Zip: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP: F 085-15108
Plt ID: 085-00078
Reviewer: Edward A. Longenberger
Date: December 4, 2001

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % MEK	Weight % Glycol Ethers	Weight % Toluene	Weight % Vinyl Acetate	Weight % Dimethyl-phthalate	Weight % Styrene	Weight % Xylene	Weight % Ethyl Benzene	Weight % Methyl Methacrylate	MEK Emissions (tons/yr)	Glycol Ether Emissions (tons/yr)	Toluene Emissions (tons/yr)	Vinyl Acetate Emissions (tons/yr)	Dimethyl-phthalate Emissions (tons/yr)	Styrene Emissions (tons/yr)	Xylene Emissions (tons/yr)	Ethyl Benzene Emissions (tons/yr)	Methyl Methacrylate Emissions (tons/yr)
Line 3																					
Acrylic Laquer Thinner, 3613S	6.61	0.00133	2.5	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Adhesive Spray, 3M 90	5.84	0.00063	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Body Filler 6370	9.95	0.00273	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00
Rubbing Compound 711-G	10.00	0.00273	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paint B8951-L	8.88	0.00297	2.5	5.00%	0.00%	20.00%	0.00%	0.00%	0.00%	10.00%	2.00%	2.00%	0.01	0.00	0.06	0.00	0.00	0.00	0.03	0.01	0.01
Glass Cleaner	8.26	0.04688	2.5	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ABS Pipe Cement	7.26	0.04063	2.5	75.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crazy Clean Cleaner	8.34	0.02992	2.5	0.00%	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00
Acrylic Color Blender DXA100	7.11	0.00391	2.5	2.00%	0.00%	45.00%	0.00%	0.00%	0.00%	15.00%	0.00%	0.00%	0.01	0.00	0.14	0.00	0.00	0.00	0.05	0.00	0.00
Gelcoat, Black GV30763	9.37	0.00039	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	5.00%	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
Gelcoat, White GV42000	10.68	0.00078	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	5.00%	0.00	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00
Methyl Ethyl Ketone Peroxide	9.26	0.00039	2.5	0.00%	0.00%	0.00%	0.00%	47.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00
Silicone Caulk SM5731	11.84	0.07813	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silicone Caulk SM5732	8.67	0.04688	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silicone Caulk SM5770	10.73	0.21875	2.5	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Polyurethane Sealant SM7100	13.34	0.37109	2.5	0.00%	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	1.63	0.00	0.00	0.00	0.00	0.00	0.00
Wood Glue, Wood Lock 40-0294	9.30	0.25000	2.5	0.00%	0.00%	0.00%	0.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
												Individual Total	**2.443**	**0.212**	**1.904**	**0.051**	**0.019**	**0.125**	**0.075**	**0.006**	**0.012**
												Overall Total	**4.846**								

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % MEK	Weight % Glycol Ethers	Weight % Toluene	Weight % Vinyl Acetate	Weight % Dimethyl-phthalate	Weight % Styrene	Weight % Xylene	Weight % Ethyl Benzene	Weight % Methyl Methacrylate	MEK Emissions (tons/yr)	Glycol Ether Emissions (tons/yr)	Toluene Emissions (tons/yr)	Vinyl Acetate Emissions (tons/yr)	Dimethyl-phthalate Emissions (tons/yr)	Styrene Emissions (tons/yr)	Xylene Emissions (tons/yr)	Ethyl Benzene Emissions (tons/yr)	Methyl Methacrylate Emissions (tons/yr)
Line 4																					
Adhesive Spray, 3M 90	5.84	0.00063	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Glass Cleaner	8.26	0.04688	2.0	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ABS Pipe Cement	7.26	0.04844	2.0	75.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crazy Clean Cleaner	8.34	0.02992	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silicone Caulk SM5731	11.84	0.07813	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silicone Caulk SM5732	8.67	0.21875	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silicone Caulk SM5770	10.73	0.04688	2.0	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Polyurethane Sealant SM7100	13.34	0.37109	2.0	0.00%	0.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	1.30	0.00	0.00	0.00	0.00	0.00	0.00
Wood Glue, Wood Lock 40-0294	9.30	0.25000	2.0	0.00%	0.00%	0.00%	0.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
												Individual Total	**2.311**	**0.170**	**1.301**	**0.041**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
												Overall Total	**3.822**								

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % MEK	Weight % Glycol Ethers	Weight % Toluene	Weight % Vinyl Acetate	Weight % Dimethyl-phthalate	Weight % Styrene	Weight % Xylene	Weight % Ethyl Benzene	Weight % Methyl Methacrylate	MEK Emissions (tons/yr)	Glycol Ether Emissions (tons/yr)	Toluene Emissions (tons/yr)	Vinyl Acetate Emissions (tons/yr)	Dimethyl-phthalate Emissions (tons/yr)	Styrene Emissions (tons/yr)	Xylene Emissions (tons/yr)	Ethyl Benzene Emissions (tons/yr)	Methyl Methacrylate Emissions (tons/yr)
Line 5																					
Adhesive Spray 3M 90	5.84	0.00063	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C-31 Cyclo Glass Clean	8.26	0.04688	2.000	0.00%	5.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ABS Pipe Cement	7.26	0.04844	2.000	75.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crazy Clean Cleaner	8.34	0.02992	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silicone Caulk SM5731	11.84	0.07813	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silicone Caulk SM5732	8.67	0.21875	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Silicone Caulk SM5770	10.73	0.04688	2.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Glue, Wood Lock 40-0294	9.30	0.25000	2.000	0.00%	0.00%	0.00%	0.20%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00
												Individual Total	**2.311**	**0.170**	**0.000**	**0.041**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**
												Overall Total	**2.521**								

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
HAP Emission Calculations
Summary of HAP Emissions from Surface Coating Operations

Company Name: R-Vision Inc.
Address City IN Zip: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP: F 085-15108
Plt ID: 085-00078
Reviewer: Edward A. Longenberger
Date: December 4, 2001

Production Line	MEK Emissions (tons/yr)	Glycol Ether Emissions (tons/yr)	Toluene Emissions (tons/yr)	Vinyl Acetate Emissions (tons/yr)	Dimethyl Phthalate Emissions (tons/yr)	Styrene Emissions (tons/yr)	Xylene Emissions (tons/yr)	Ethyl Benzene Emissions (tons/yr)	Methyl Methacrylate Emissions (tons/yr)
Line 1	1.77	0.212	1.90	0.051	0.019	0.125	0.075	0.006	0.012
Line 2	2.44	0.212	1.90	0.051	0.019	0.125	0.075	0.006	0.012
Line 3	2.44	0.212	1.90	0.051	0.019	0.125	0.075	0.006	0.012
Line 4	2.31	0.170	1.30	0.041	0.000	0.000	0.000	0.000	0.000
Line 5	2.31	0.170	0.00	0.041	0.000	0.000	0.000	0.000	0.000
Total	**11.28**	**0.975**	**7.01**	**0.234**	**0.056**	**0.375**	**0.224**	**0.017**	**0.037**
Overall Total	**20.21**								

Appendix A: Emission Calculations
Woodworking Operations

Company Name: R-Vision Inc.
Address City IN Zip: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP: F 085-15108
Plt ID: 085-00078
Reviewer: Edward A. Longenberger
Date: December 4, 2001

Unit ID	Control Efficiency (%)	Grain Loading per Actual Cubic foot of Outlet Air (grains/cub. ft.)	Gas or Air Flow Rate (acfm)	Emission Rate before Controls (lb/hr)	Emission Rate before Controls (tons/yr)	Emission Rate after Controls (lb/hr)	Emission Rate after Controls (tons/yr)
Wood1.1	80.0%	0.024	4500.0	4.63	20.3	0.926	4.05
Wood2	80.0%	0.014	4500.0	2.70	11.8	0.540	2.37
Wood3	80.0%	0.014	4500.0	2.70	11.8	0.540	2.37
Wood4	80.0%	0.014	4500.0	2.70	11.8	0.540	2.37
Wood5	80.0%	0.014	4500.0	2.70	11.8	0.540	2.37
			Total	**15.43**	**67.58**	**3.09**	**13.52**

Methodology

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)
Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Allowable Rate of PM Emissions pursuant to 326 IAC 6-3-2

Unit ID	Process Weight Rate (lbs/hr)	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)
Wood1.1	1460	0.73	3.32
Wood2	1500	0.75	3.38
Wood3	1500	0.75	3.38
Wood4	1500	0.75	3.38
Wood5	1500	0.75	3.38

Methodology

Allowable Emissions = 4.10 x (process weight rate in tons per hour) ^0.67

Appendix A: Welding and Thermal Cutting

Company Name: R-Vision Inc.
Address City IN Zip: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP: F 085-15108
Plt ID: 085-00078
Reviewer: Edward A. Longenberger
Date: December 4, 2001

PROCESS WELDING	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS * (lb pollutant / lb electrode) PM = PM10	Mn	Ni	Cr	EMISSIONS (lb/hr) PM = PM10	Mn	Ni	Cr	TOTAL HAPs (lb/hr)
Metal Inert Gas (MIG)(ER5154)	3	1		0.0241	0.00003		0.00001	0.072	0.000102	0.000000	0.000030	0.0001
Metal Inert Gas (MIG)(ER5154)	1	0.5		0.0241	0.00003		0.00001	0.012	0.000017	0.000000	0.000005	0.0000
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick) PM = PM10	Mn	Ni	Cr	EMISSIONS (lbs/hr) PM = PM10	Mn	Ni	Cr	TOTAL HAPs (lb/hr)
Oxyacetylene	1	1	40	0.1622	0.0005	0.0001	0.0003	0.389	0.0002	0.0000	0.0000	0.0002
EMISSION TOTALS								PM = PM10	Mn	Ni	Cr	Total HAPs
Potential Emissions lbs/hr								0.474	0.000	0.000	0.000	0.00
Potential Emissions lbs/day								11.37	0.008	0.000	0.001	0.01
Potential Emissions tons/year								**2.07**	0.001	0.000	0.000	0.002

METHODOLGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.

Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).

Welding and other flame cutting emission factors are from an internal training session document.

See AP-42, Chapter 12.19 for additional emission factors for welding.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: R-Vision Inc.
Address City IN Zip: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP: F 085-15108
Plt ID: 085-00078
Reviewer: Edward A. Longenberger
Date: December 4, 2001

Four (4) space heaters (H1.1-H1.4) rated at 0.225, 0.125, 0.10, and 0.075
Four (4) space heaters (H2.1-H2.4) rated at 0.125 each
Five (5) space heaters (H2.5-H2.9) rated at 0.20 each
Five (5) space heaters (H3.1-H3.3, H3.5 and H3.6) rated at 0.15 each
Seven (7) space heaters (H3.4, H3.7-H3.12) rated at 0.125 each
Eight (8) space heaters (H4.1-H4.8) rated at 0.10 each
Eight (8) space heaters (H5.1-H5.8) rated at 0.20 each

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
6.05	53.00

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.050	0.201	0.016	2.65	0.146	2.23

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 10 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Company Name: R-Vision Inc.
Address City IN Zip: 2666 South Country Club Road, Warsaw, Indiana 46580
FESOP: F 085-15108
Plt ID: 085-00078
Reviewer: Edward A. Longenberger
Date: December 4, 2001

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	5.56E-05	3.18E-05	1.99E-03	4.77E-02	9.01E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	Total
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	HAPs
Potential Emission in tons/yr	1.32E-05	2.91E-05	3.71E-05	1.01E-05	5.56E-05	0.050

Methodology is the same as page 9.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.